



TFT LCD Approval Specification

MODEL NO.: M185B1-L02

Customer: _____

Approved by: _____

Note:



- CONTENTS -

REVISION HISTORY	3
1. GENERAL DESCRIPTION	4
1.1 OVERVIEW	
1.2 FEATURES	
1.3 APPLICATION	
1.4 GENERAL SPECIFICATIONS	
1.5 MECHANICAL SPECIFICATIONS	
2. ABSOLUTE MAXIMUM RATINGS	5
2.1 ABSOLUTE RATINGS OF ENVIRONMENT	
2.2 ELECTRICAL ABSOLUTE RATINGS	
2.2.1 TFT LCD MODULE	
2.2.2 BACKLIGHT UNIT	
3. ELECTRICAL CHARACTERISTICS	7
3.1.1 TFT LCD MODULE	
3.1.2 Vcc Power Dip Condition:	
3.2 BACKLIGHT UNIT	
4. BLOCK DIAGRAM	11
4.1 TFT LCD MODULE	
4.2 BACKLIGHT UNIT	
5. INPUT TERMINAL PIN ASSIGNMENT	12
5.1 TFT LCD MODULE	
5.2 LVDS DATA MAPPING TABLE	
5.3 BACKLIGHT UNIT	
5.4 COLOR DATA INPUT ASSIGNMENT	
6. INTERFACE TIMING	15
6.1 INPUT SIGNAL TIMING SPECIFICATIONS	
6.2 POWER ON/OFF SEQUENCE	
7. OPTICAL CHARACTERISTICS	17
7.1 TEST CONDITIONS	
7.2 OPTICAL SPECIFICATIONS	
8. PACKAGING	21
8.1 PACKING SPECIFICATIONS	
8.2 PACKING METHOD	
9. DEFINITION OF LABELS	23
10. PRECAUTIONS	24
10.1 ASSEMBLY AND HANDLING PRECAUTIONS	
10.2 SAFETY PRECAUTIONS	
11. MECHANICAL CHARACTERISTICS	25

**REVISION HISTORY**

Version	Date	Section	Description
Ver 1.0	May.30, 08'		M185B1-L02 Tentative specification was first issued.



1. GENERAL DESCRIPTION

1.1 OVERVIEW

M185B1-L02 is a 18.5" TFT Liquid Crystal Display module with 2 CCFL Backlight unit and 30pin 1ch-LVDS interface. This module supports 1366 x 768 WXGA mode and can display up to 16.7M colors. The inverter module for Backlight is not built in.

1.2 FEATURES

- Contrast ratio 1000:1
- Response time 5ms.
- Brightness 250nits
- Color saturation NTSC 72%.
- WXGA (1366 x 768 pixels) resolution.
- DE (Data Enable) only mode.
- LVDS (Low Voltage Differential Signaling) interface.
- RoHS compliance.

1.3 APPLICATION

- TFT LCD Monitor

1.4 GENERAL SPECIFICATIONS

Item	Specification	Unit	Note
Active Area	409.8 (H) × 230.4(V) (18.5" diagonal)	mm	(1)
Bezel Opening Area	413.4(H) x 234 (V)	mm	
Driver Element	a-Si TFT active matrix	-	-
Pixel Number	1366 x R.G.B. x 768	pixel	-
Pixel Pitch	0.3 (H) x 0.3 (V)	mm	-
Pixel Arrangement	RGB vertical stripe	-	-
Display Colors	16.7M	color	-
Transmissive Mode	Normally White	-	-
Surface Treatment	AG type, 3H hard coating, Haze 25	-	-

1.5 MECHANICAL SPECIFICATIONS

Item		Min.	Typ.	Max.	Unit	Note
Module Size	Horizontal(H)	429.87	430.37	430.87	mm	(1)
	Vertical(V)	254.1	254.6	255.1	mm	
	Depth(D)		16.25	16.75	mm	
Weight		-	1965	2000	g	-

Note (1) Please refer to the attached drawings for more information of front and back outline dimensions.

2. ABSOLUTE MAXIMUM RATINGS

2.1 ABSOLUTE RATINGS OF ENVIRONMENT

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Storage Temperature	T _{ST}	-20	60	°C	(1)
Operating Ambient Temperature	T _{OP}	0	50	°C	(1), (2)
Shock (Non-Operating)	S _{NOP}	-	50	G	(3), (5)
Vibration (Non-Operating)	V _{NOP}	-	1.5	G	(4), (5)

2.2 ELECTRICAL ABSOLUTE RATINGS

2.2.1 TFT LCD MODULE

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Power Supply Voltage	V _{cc}	-0.3	+6.0	V	(1)

2.2.2 BACKLIGHT UNIT

Item	Symbol	Value		Unit	Note
		Min.	Max.		
Lamp Voltage	V _L	-	2.5K	V _{RMS}	(1), (2), I _L = 7.5mA
Lamp Current	I _L	(2.0)	(8.0)	mA _{RMS}	(1), (2)
Lamp Frequency	F _L	40	80	KHz	

Note (1) Permanent damage to the device may occur if maximum values are exceeded. Function operation should be restricted to the conditions described under Normal Operating Conditions.

Note (2) Specified values are for lamp (Refer to 3.2 for further information).

3. ELECTRICAL CHARACTERISTICS

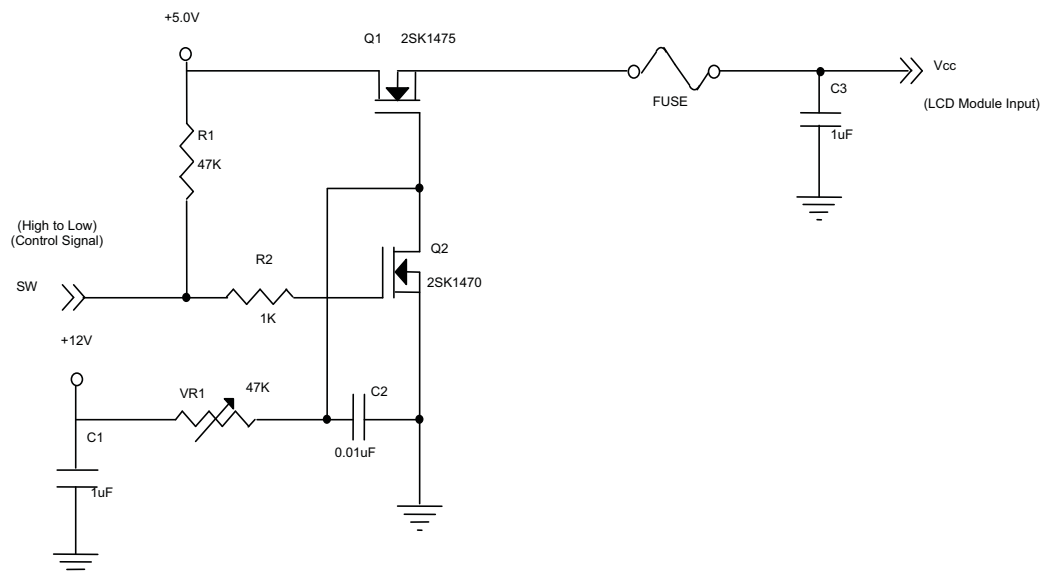
3.1.1 TFT LCD MODULE

Ta = 25 ± 2 °C

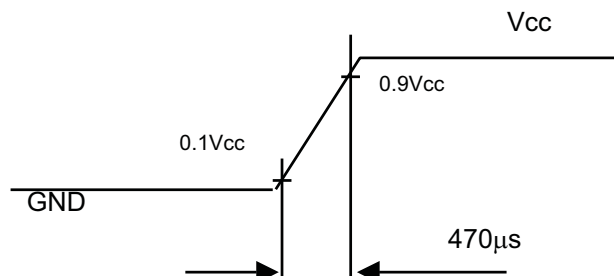
Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Power Supply Voltage	V _{CC}	4.5	5.0	5.5	V	-
Ripple Voltage	V _{RP}	-	-	100	mV	-
Rush Current	I _{RUSH}		2	3	A	(2)
Power Supply Current	White			0.6	A	(3)a
	Black			0.9	A	(3)b
	Vertical Stripe			0.9	A	(3)c
LVDS differential input voltage	V _{id}	100	-	600	mV	
LVDS common input voltage	V _{ic}	-	1.2	-	V	

Note (1) The module should be always operated within above ranges.

Note (2) Measurement Conditions:



Vcc rising time is 470μs



Note (3) The specified power supply current is under the conditions at $V_{cc} = 5.0\text{ V}$, $T_a = 25 \pm 2\text{ }^{\circ}\text{C}$, $f_v = 60\text{ Hz}$, whereas a power dissipation check pattern below is displayed.

a. White Pattern



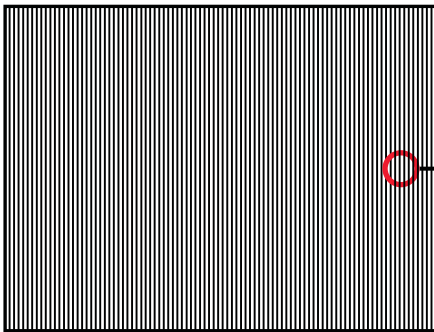
Active Area

b. Black Pattern

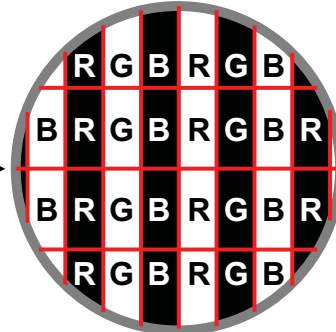


Active Area

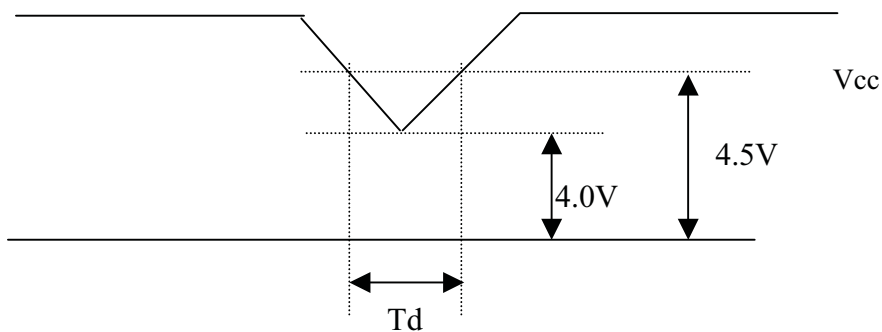
c. Vertical Stripe Pattern



Active Area



3.1.2 Vcc Power Dip Condition:



Dip condition: $4.0V \leq V_{cc} \leq 4.5V, T_d \leq 20ms$

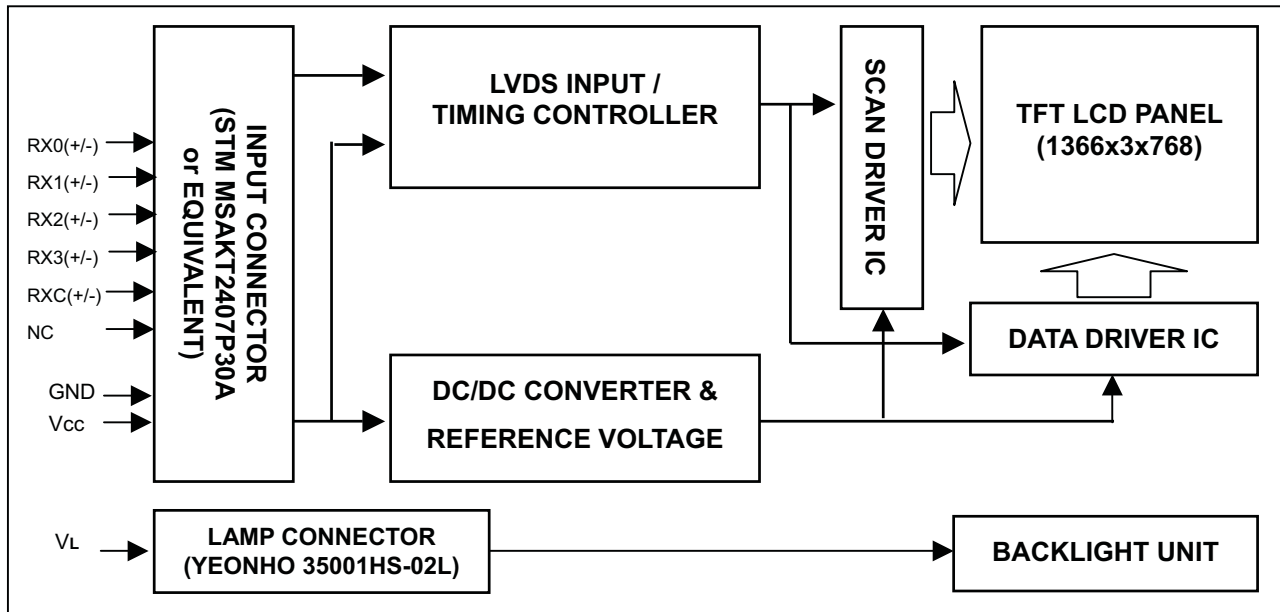
3.2 BACKLIGHT UNIT

 $T_a = 25 \pm 2 \text{ }^{\circ}\text{C}$

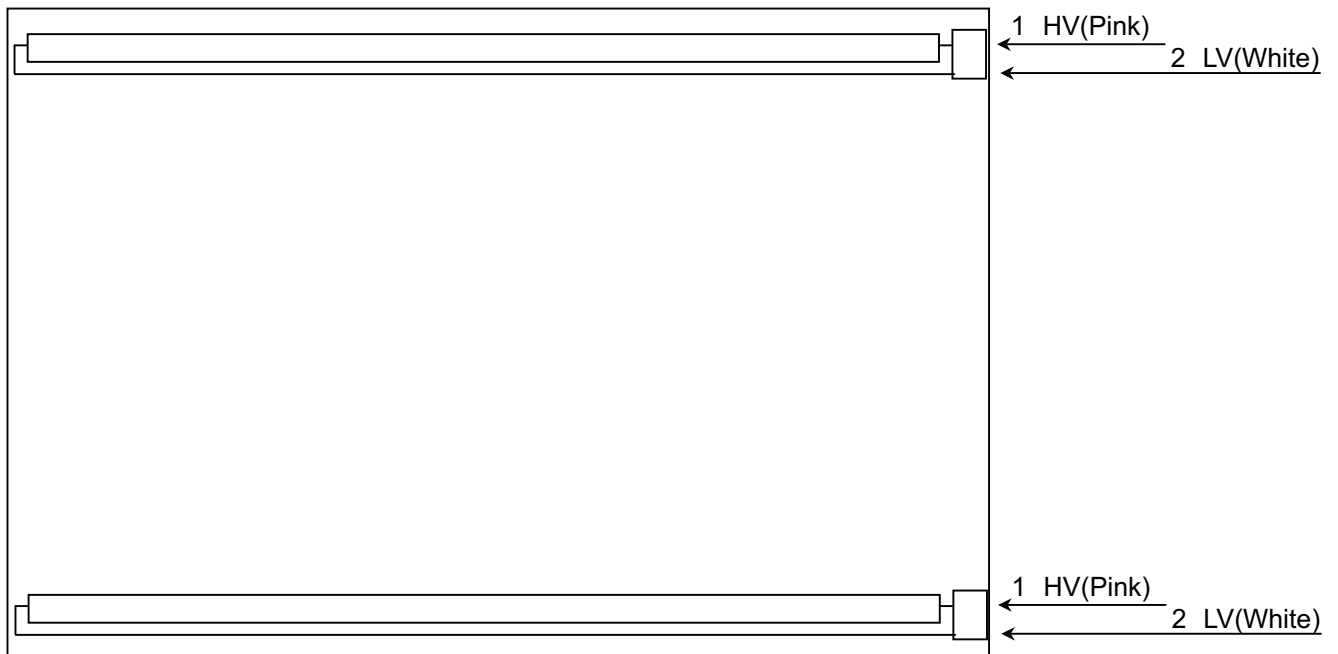
Parameter	Symbol	Value			Unit	Note
		Min.	Typ.	Max.		
Lamp Input Voltage	V_L	---	(775)	(853)	V_{RMS}	$I_L = 7.5 \text{ mA}$
Lamp Current	I_L	(2.0)	(7.5)	(8.0)	mA_{RMS}	(1)

4. BLOCK DIAGRAM

4.1 TFT LCD MODULE



4.2 BACKLIGHT UNIT



5. INPUT TERMINAL PIN ASSIGNMENT

5.1 TFT LCD MODULE

Pin	Name	Description
1	NC	Not connection, this pin should be open.
2	NC	Not connection, this pin should be open.
3	NC	Not connection, this pin should be open.
4	GND	Ground
5	RX0-	Negative LVDS differential data input. Channel 0
6	RX0+	Positive LVDS differential data input. Channel 0
7	GND	Ground
8	RX1-	Negative LVDS differential data input. Channel 1
9	RX1+	Positive LVDS differential data input. Channel 1
10	GND	Ground
11	RX2-	Negative LVDS differential data input. Channel 2
12	RX2+	Positive LVDS differential data input. Channel 2
13	GND	Ground
14	RXCLK-	Negative LVDS differential clock input.
15	RXCLK+	Positive LVDS differential clock input.
16	GND	Ground
17	RX3-	Negative LVDS differential data input. Channel 3
18	RX3+	Positive LVDS differential data input. Channel 3
19	GND	Ground
20	NC	Not connection, this pin should be open.
21	NC	Not connection, this pin should be open.
22	NC	Not connection, this pin should be open.
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	Vcc	+5.0V power supply
27	Vcc	+5.0V power supply
28	Vcc	+5.0V power supply
29	Vcc	+5.0V power supply
30	Vcc	+5.0V power supply

Note (1) Connector Part No.: STM MSAKT2407P30A or equivalent

5.2 LVDS mapping table

LVDS Channel 0	LVDS output	D7	D6	D4	D3	D2	D1	D0
	Data order	G0	R5	R4	R3	R2	R1	R0
LVDS Channel 1	LVDS output	D18	D15	D14	D13	D12	D9	D8
	Data order	B1	B0	G5	G4	G3	G2	G1
LVDS Channel 2	LVDS output	D26	D25	D24	D22	D21	D20	D19
	Data order	DE	NA	NA	B5	B4	B3	B2
LVDS Channel 3	LVDS output	D23	D17	D16	D11	D10	D5	D27
	Data order	NA	B7	B6	G7	G6	R7	R6

5.3 BACKLIGHT UNIT:

Pin	Symbol	Description	Remark
1	HV	High Voltage	Pink
2	LV	Low Voltage	White

Note (1) Connector Part No.: YEONHO 35001HS-02L or equivalent

5.4 COLOR DATA INPUT ASSIGNMENT

The brightness of each primary color (red, green and blue) is based on the 8-bit gray scale data input for the color. The higher the binary input, the brighter the color. The table below provides the assignment of color versus data input.

Color		Data Signal																							
		Red								Green								Blue							
		R7	R6	R5	R4	R3	R2	R1	R0	G7	G6	G5	G4	G3	G2	G1	G0	B7	B6	B5	B4	B3	B2	B1	B0
Basic Colors	Black	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	Blue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Cyan	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Magenta	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
	Yellow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
	White	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Gray Scale Of Red	Red(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red(1)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red(2)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Red(253)	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red(254)	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Red(255)	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gray Scale Of Green	Green(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Green(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	Green(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Green(253)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0
	Green(254)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
	Green(255)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
Gray Scale Of Blue	Blue(0) / Dark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Blue(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Blue(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
	Blue(253)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	1
	Blue(254)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0
	Blue(255)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Note (1) 0: Low Level Voltage, 1: High Level Voltage

6. INTERFACE TIMING

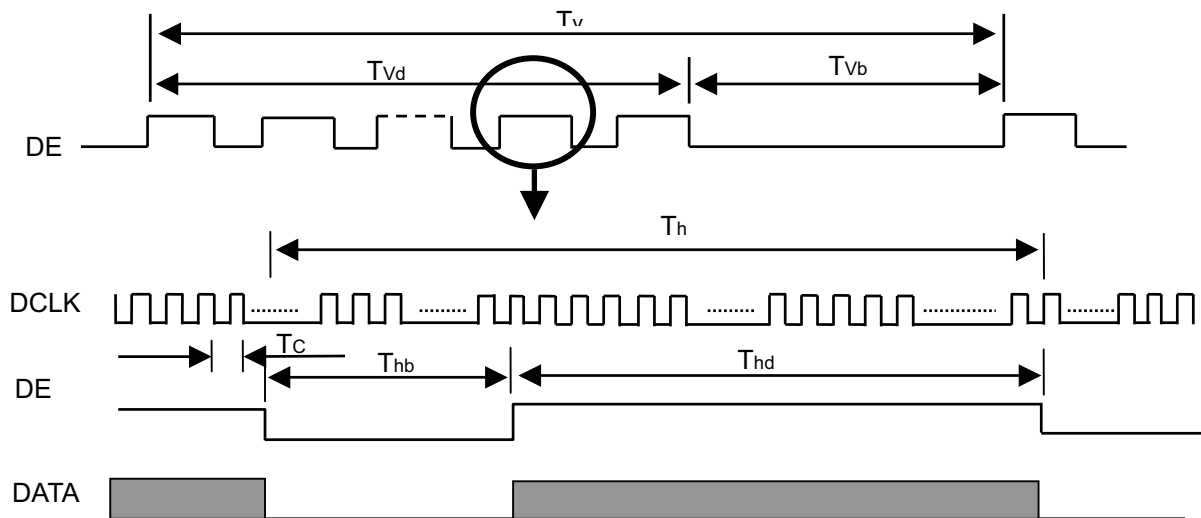
6.1 INPUT SIGNAL TIMING SPECIFICATIONS

The input signal timing specifications are shown as the following table and timing diagram.

Signal	Item	Symbol	Min.	Typ.	Max.	Unit	Note
LVDS Clock	Frequency	Fc	50.0	76	95	MHz	-
	Period	Tc	10.5	13.2	20	ns	
	High Time	Tch	-	4/7	-	Tc	-
	Low Time	Tcl	-	3/7	-	Tc	-
LVDS Data	Setup Time	Tlvs	600	-	-	ps	-
	Hold Time	Tlvh	600	-	-	ps	-
Vertical Active Display Term	Frame Rate	Fr	40	60	75	Hz	Tv=Tvd+Tvb
	Total	Tv	778	806	888	Th	-
	Display	Tvd	768	768	768	Th	-
	Blank	Tvb	Tv-Tvd	38	Tv-Tvd	Th	-
Horizontal Active Display Term	Total	Th	1446	1560	1936	Tc	Th=Thd+Thb
	Display	Thd	1366	1366	1366	Tc	-
	Blank	Thb	Th-Thd	194	Th-Thd	Tc	-

Note: Because this module is operated by DE only mode, Hsync and Vsync input signals should be set to low logic level or ground. Otherwise, this module would operate abnormally.

INPUT SIGNAL TIMING DIAGRAM



7. OPTICAL CHARACTERISTICS

7.1 TEST CONDITIONS

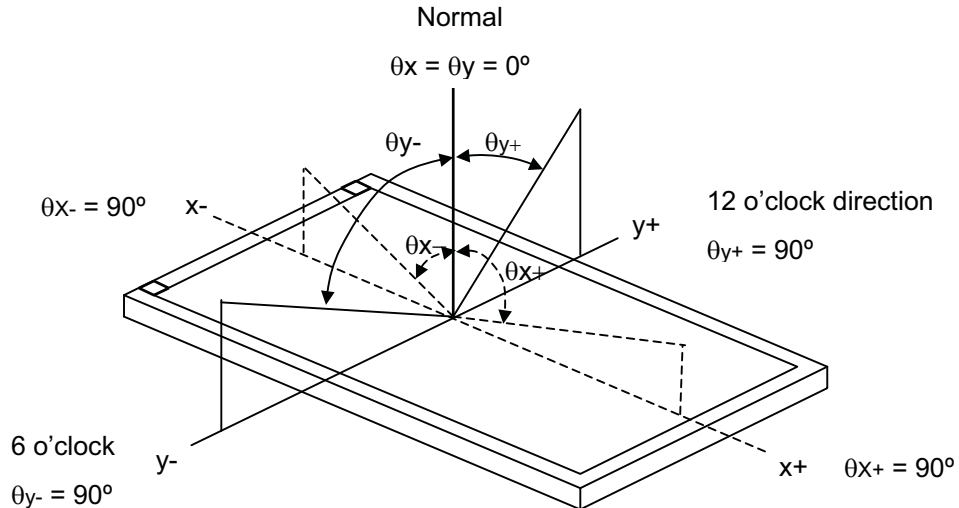
Item	Symbol	Value	Unit
Ambient Temperature	Ta	25±2	°C
Ambient Humidity	Ha	50±10	%RH
Supply Voltage	V _{CC}	5V	V
Input Signal	According to typical value in "3. ELECTRICAL CHARACTERISTICS"		
Lamp Current	I _L	(7.5 ± 0.5)	mA
Inverter Operating Frequency	F _L	55±5	KHz
Inverter	(Darfon VK.13165.101)		

7.2 OPTICAL SPECIFICATIONS

The relative measurement methods of optical characteristics are shown in 7.2. The following items should be measured under the test conditions described in 7.1 and stable environment shown in Note (5).

Item		Symbol	Condition	Min.	Typ.	Max.	Unit	Note
Color Chromaticity (CIE 1931)	Red	R _x	$\theta_x=0^\circ, \theta_Y=0^\circ$ CS-1000T	Typ - 0.03	(0.647)	Typ + 0.03	-	(1), (5)
		R _y			(0.334)			
	Green	G _x			(0.284)			
		G _y			(0.607)			
	Blue	B _x			(0.151)			
		B _y			(0.071)			
	White	W _x			0.313			
		W _y			0.329			
Center Luminance of White (Center of Screen)		L _C		(185)	(250)	-	cd/m ²	(4), (5)
Contrast Ratio		CR		630	1000	-	-	(2), (5)
Response Time		T _R	$\theta_x=0^\circ, \theta_Y=0^\circ$	-	1.5	3.5	ms	(3)
		T _F		-	3.5	6.5		
White Variation		δW	$\theta_x=0^\circ, \theta_Y=0^\circ$ USB2000	-	(1.3)	(1.5)	-	(5), (6)
	Horizontal	θ _x +		75	85	-		
		θ _x -		75	85	-		
		θ _y +		70	80	-		

Note (1) Definition of Viewing Angle (θ_x , θ_y):



Note (2) Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression.

$$\text{Contrast Ratio (CR)} = L_{255} / L_0$$

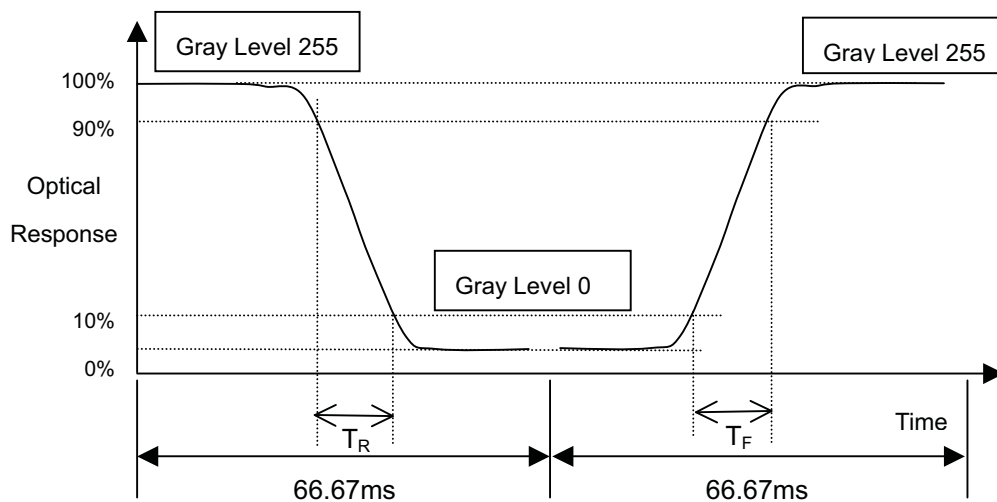
L255: Luminance of gray level 255

L 0: Luminance of gray level 0

CR = CR (5)

CR (X) is corresponding to the Contrast Ratio of the point X at Figure in Note (6).

Note (3) Definition of Response Time (T_R , T_F):



Note (4) Definition of Luminance of White (L_c):

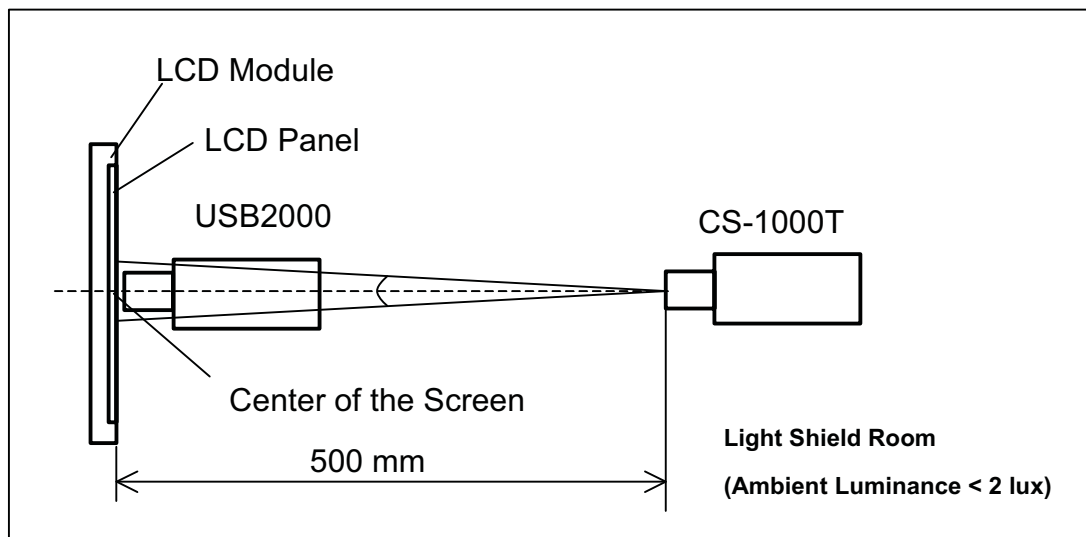
Measure the luminance of gray level 255 at center point

$$L_c = L(5)$$

$L(x)$ is corresponding to the luminance of the point X at Figure in Note (6).

Note (5) Measurement Setup:

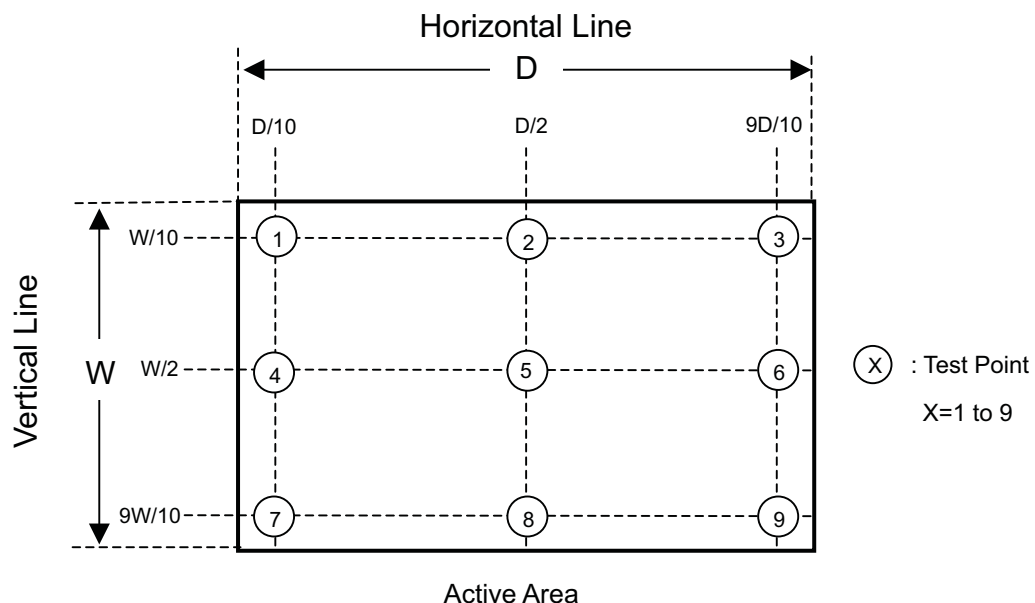
The LCD module should be stabilized at given temperature for 20 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 20 minutes in a windless room.



Note (6) Definition of White Variation (δW):

Measure the luminance of gray level 255 at 9 points

$$\delta W = \text{Maximum} [L(1), L(2) \dots L(4), L(9)] / \text{Minimum} [L(1), L(2) \dots L(4), L(9)]$$



9. DEFINITION OF LABELS

9.1 CMO MODULE LABEL

The barcode nameplate is pasted on each module as illustration, and its definitions are as following explanation.



- (a) Model Name: M185B1-L02
- (b) Revision: Rev. XX, for example: A0, A1... B1, B2... or C1, C2...etc.
- (c) CMO barcode definition:

Serial ID: XX-XX-X-XX-YMD-L-NNNN

Code	Meaning	Description
XX	CMO internal use	-
XX	Revision	Cover all the change
X	CMO internal use	-
XX	CMO internal use	-
YMD	Year, month, day	Year: 2001=1, 2002=2, 2003=3, 2004=4... Month: 1~12=1, 2, 3, ~, 9, A, B, C Day: 1~31=1, 2, 3, ~, 9, A, B, C, ~, W, X, Y, exclude I, O, and U.
L	Product line #	Line 1=1, Line 2=2, Line 3=3, ...
NNNN	Serial number	Manufacturing sequence of product

- (d) Customer's barcode definition:

Serial ID: CM-15B11-X-X-X-XX-L-XX-L-YMD-NNNN

Code	Meaning	Description
CM	Supplier code	CMO=CM
18B11	Model number	M185B1-L02 = 18B12
X	Revision code	Non ZBD: 1,~,9,0 / ZBD: A~Z
X	Source driver IC code	Century=1, CLL=2, Demos=3, Epson=4, Fujitsu=5, Himax=6, Hitachi=7, Hynix=8, LDI=9, Matsushita=A, NEC=B, Novatec=C, OKI=D, Philips=E, Renasas=F, Samsung=G, Sanyo=H, Sharp=I, TI=J, Topro=K, Toshiba=L, Windbond=M
X	Gate driver IC code	
XX	Cell location	Tainan Taiwan=TN, Ningbo China=NP
L	Cell line #	1~12=0~C
XX	Module location	Tainan Taiwan=TN, Ningbo China=NP
L	Module line #	1~12=0~C
YMD	Year, month, day	Year: 2001=1, 2002=2, 2003=3, 2004=4... Month: 1~12=1, 2, 3, ~, 9, A, B, C Day: 1~31=1, 2, 3, ~, 9, A, B, C, ~, T, U, V
NNNN	Serial number	By LCD supplier

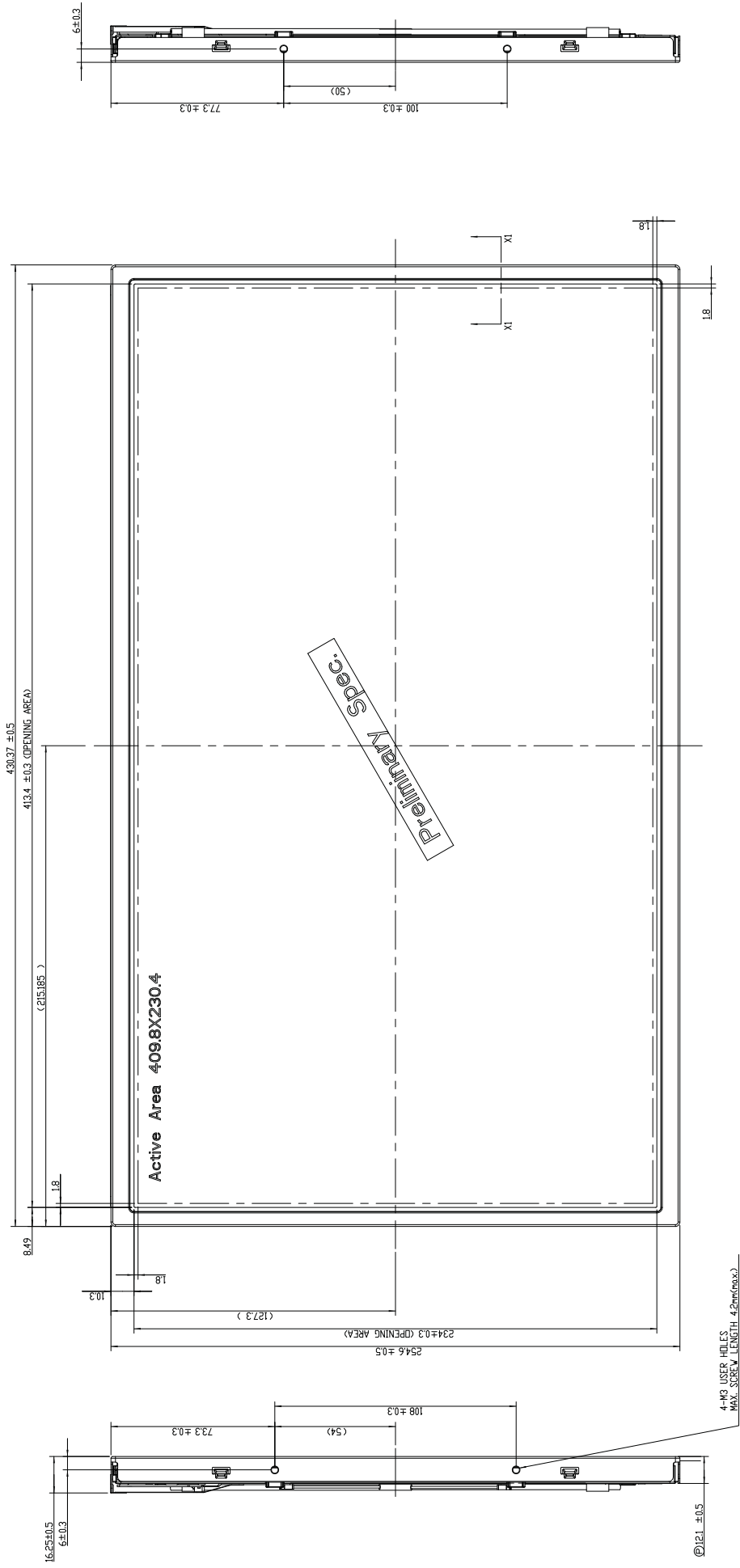
10. PRECAUTIONS

10.1 ASSEMBLY AND HANDLING PRECAUTIONS

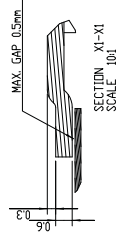
- (1) Do not apply rough force such as bending or twisting to the module during assembly.
- (2) To assemble or install module into user's system can be only in clean working areas. The dust and oil may cause electrical short or worsen the polarizer.
- (3) It's not permitted to have pressure or impulse on the module because the LCD panel and Backlight will be damaged.
- (4) Always follow the correct power sequence when LCD module is connecting and operating. This can prevent damage to the CMOS LSI chips during latch-up.
- (5) Do not pull the I/F connector in or out while the module is operating.
- (6) Do not disassemble the module.
- (7) Use a soft dry cloth without chemicals for cleaning, because the surface of polarizer is very soft and easily scratched.
- (8) It is dangerous that moisture come into or contacted the LCD module, because moisture may damage LCD module when it is operating.
- (9) High temperature or humidity may reduce the performance of module. Please store LCD module within the specified storage conditions.
- (10) When ambient temperature is lower than 10°C may reduce the display quality. For example, the response time will become slowly, and the starting voltage of CCFL will be higher than room temperature.

10.2 SAFETY PRECAUTIONS

- (1) The startup voltage of Backlight is approximately 1000 Volts. It may cause electrical shock while assembling with inverter. Do not disassemble the module or insert anything into the Backlight unit.
- (2) If the liquid crystal material leaks from the panel, it should be kept away from the eyes or mouth. In case of contact with hands, skin or clothes, it has to be washed away thoroughly with soap.
- (3) After the module's end of life, it is not harmful in case of normal operation and storage.

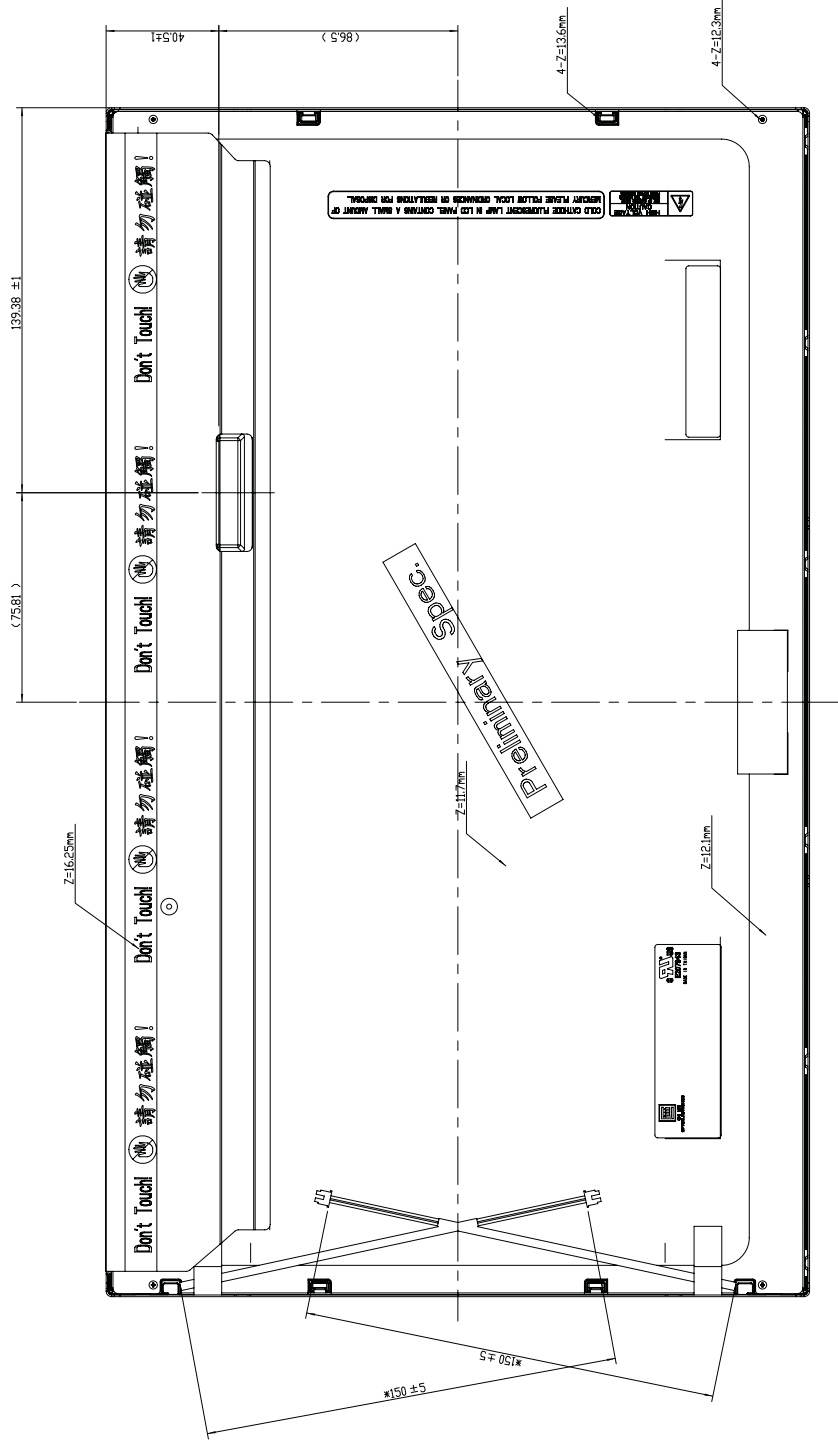


NOTES:
1. OUTLINE TOLERANCE $\pm 0.5mm$.
2. I/F CONNECTOR SPEC: STM MSAKT2407P30A DR EQUIVALENT.
3. LAMP CONNECTOR: YEDNHD_LOCKING_TYPE 3500HS-02L DR EQUIVALENT.
4. SIDE MOUNT HOLE TORQUE : 5kgf-cm (MAX).



TITLE	ASY_MODULE_M03B-1.02	Drawing No.	M03B24011	Sheet 1 / 2	AI
Approved	Alvin Lee	Part No.			
Checked	Alvin Lee	Material			
Drawn	Hongling Hou	Date	13-Apr-2008	Scale	1:1
Designer	Hongling Hou				
 CHI MEI OPTOELECTRONICS CORP.			ALL RIGHTS RESERVED. COPYING FORBIDDEN.		
14	15	16			

Mark	Description	Date	Changed By	Approved By	ECN No.	Remark



NOTES:
1. OUTLINE TOLERANCE $\pm 0.5mm$.
2. I/F CONNECTOR SPEC: STM MSAKT2407P30A DR EQUIVALENT.
3. LAMP CONNECTOR: YEDNHD_LOCKING_TYPE 3500HS-02L DR EQUIVALENT.
4. SIDE MOUNT HOLE TORQUE : 5kgf-cm(MAX).

TITLE ASSY. MIDDLE M8558-L02		Drawing No. M8524-0011		PD REV. 01	
Approved	Tiger Chang	Part No.	TBD	PD REV. 12	
Checked	Alan Lee	Material	TBD		
Drafter	Hongling Hou	Date	30-Apr-2008	Sheet 2 / 2	
Designer	Hongling Hou	Scale	1:1	A1	
					


CHI MEI
 OPTOELECTRONICS CORP.

ALL RIGHTS RESERVED. COPYING PROHIBITED.

Mark	Description	Date	Changed By	Approved By	ECN No.	Remark